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Forest, Fish and Game Commission

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MAKING A WOODLOT FROM SEED

BY

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Making A Woodlot From Seed.

INTRODUCTORY.

In the early history of New York, it was essential that the farming land should be cleared of trees. Even yet in some few parts of the State such clearing may be necessary. But so thoroughly have trees been removed that there are now very many farms with scarcely a stick of living timber. The land has not been thus denuded because it is all arable, or even good grazing land. Nearly every farm has some ground that is fit for little else than the raising of trees, as they will grow where the soil is too poor for farm crops, and on places too steep or too stony for grazing.

Nearly every farmer realizes the importance of a woodlot, since, on the farm, wood is put to so many uses. It is needed for firewood, building, fencing, tool handles, and very many incidental purposes. But the trouble is, the farmer who has a woodlot does not know how to keep it in good condition if it is a good one, nor how to improve it if it is a poor one; and the farmer who has no woodlot does not know the means by which one may be established. It is the purpose of this paper to give directions for making a woodlot.

HOW TO GET TREES.

There are three ways by which trees may be obtained. Small trees may be gathered from the woods and set out on the farm; they may be purchased from nurserymen; or they may be raised from seed. To collect from the woods is inconvenient, slow, and laborious, and the trees when moved do not live well. To purchase from nurserymen is too expensive for the average farmer. But nearly every farmer has now and then a spare hour which, if devoted to raising trees from seed, would yield large profit and give much pleasure.

In New York State the farmer will do well to confine his planting at present to chestnut, or white pine, or both species. The chestnut will grow on almost any farm south of latitude 43.25 degrees. White pine will grow well anywhere in the State except near the sea coast.

HOW TO PLANT CHESTNUT.

THE SEED.

To raise chestnut trees, gather the nuts as soon as they fall from the trees. Spread them out in a thin layer on the floor, or, better, on a lath screen, and expose them for seven or eight days to the full action of the sun's rays. Then pack them in a barrel or box, in moist sand, three bushels of sand to one bushel of chestnuts. Keep them through the winter in a cool, dry place protected from vermin. In the spring as soon as the ground is thawed out plant them where the trees are to remain permanently. Take a grubhoe and hack up the soil in spots about five feet apart each way. Sow two nuts in each spot, putting them one and one-half inches below the surface of the soil. Place the nuts with their smaller ends upward.

THE NURSERY.

Some of the seed will probably be taken by mice and squirrels, and some left in the ground will fail to grow. Get ready a small nursery so that you will have young trees in the following spring to plant fail spots. Work up a small piece of ground as you would for a vegetable garden. In this nursery plant the nuts in drills. Put the drills a foot apart and place the seed four inches apart in the drill. Put the seed in the nursery only one inch deep. For two or three years you may need to replace dead trees in the field with live ones from the nursery. The trees which you leave in the nursery more than one year should be transplanted in the spring of the second year into drills two feet apart, putting the trees one foot apart in the drill. In transplanting do not let the roots become dry. Cut the strong taproots. Keep the weeds out of the nursery.

If you wish to plant oak, walnut, butternut, or hickory, follow the directions given for the chestnut. Other broadleaf trees should be started in a nursery. Remember this: no tree seed should be planted deeper than three times the short diameter of the seed.

HOW TO RAISE WHITE PINE.

THE SEED.

To raise white pine, go to the woods about the first of September and collect a bagful of pine cones. You will have to knock or cut the cones from the trees. Take the cones to a dry room protected from vermin, and spread them on the floor. In each cone are many seeds, two above nearly every scale if the cone is a good one. In a few days the scales will loosen and open. Shake out the seed or pound it out with a flail.

Then rub it through a sieve to take off the wings, and put it through a fanning mill to clean it. Store it in a cool, dry place free from vermin, till spring.

THE NURSERY.

Start your pine trees in a small nursery. As soon as the ground is thoroughly thawed out in the spring, make a bed of sandy loam, four feet wide and twelve feet long. Put on two inches of black muck or other rich soil and two pailfuls of fresh wood ashes, and work this thoroughly into the soil. Make a box around the bed, using boards one inch thick and eight inches wide, set on edge. Let the box project above the bed about five inches, and in this projecting part bore a lot of holes with an inch bit, to let the air pass freely over the bed.

Rake the top of the bed until the soil is very fine; better put it through a sieve. If the weather is dry, water the bed thoroughly with a watering can. Sow the seed so that the grains will lie about one-fourth inch apart. Then compact the surface of the soil with the back of a spade and sift on some sand, just enough to put the seed well out of sight.

Now stretch some wire cloth with one-half inch mesh over a frame that will just fit the box. Place this over the bed to keep the birds from taking the seed. Make also a lath screen that will fit the box, placing the pieces of lath the width of a lath apart and put this on the bed to give it shade. Lay extra lath into the spaces in the screen so that the bed will be thoroughly darkened. In about three weeks the seed will germinate, and as soon as the little trees begin to come through the soil remove the extra lath pieces and do not replace them. On cloudy days lift off the lath screen, but on every bright day during the first summer it should be kept on the bed. Keep the weeds out.

A short time before snow falls, turn the wire screen upside down. Fill it with leaves to keep the plants from heaving out through the winter. Put the lath screen over the leaves to hold them from being blown away by the wind. Take off the leaves and the screens in the spring as soon as the danger from heaving is over. During the second summer just keep out the weeds. Start another seed bed.

After two years growth in the seed bed transplant the trees into other nursery beds prepared similarly to the seed bed. Do this in the spring as soon as the ground is thoroughly thawed out. Thrust a spade under the plants and lift them from the bed. Shake out the trees, being careful not to tear off any roots. Place them immediately in a pail containing a puddle of thin mud. In transplanting trees, their roots must not be

allowed to get dry. Do not leave any trees in the bed with their roots exposed to the sun or wind.

Now, get a board four feet long and four inches wide. Cut nicks along one edge at every four inches. Stretch a string along one side of the transplant bed, and lay the board across one end of the bed, with the nicks toward the center, and one end of it touching the string. Get upon the board and tramp on it from one end to the other to firm the soil beneath it. Now take a trowel and dig away the soil along the edge that has the nicks, making a trench deep enough to set the plants a trifle lower than they stood in the seed bed. Then place a good plant at every nick and fill in the trench. Move the board over the transplanted row, bring it up close to the trees, but be careful not to bark the plants. Set another row and go on with the operation till all the trees are transplanted. Put more muck and ashes on your vacant seed bed and sow it again. Keep out the weeds.

PLANTING.

When the trees are three years old, take them up with a spade, puddle the roots, pack them into a basket lined with wet moss or burlap and take them to the field where the woodlot is to be started. The planting field may be far from the nursery, and it may be necessary to take to the field, at once, more plants than can be set in a few hours. In such case, when the trees arrive at the field, take them from the baskets, dip the roots in water and "heel them in"; that is, dig a trench, set the trees along it in a thin row, tops up, fill in the trench, covering the roots and about half the stems, and tramp down the soil.

Plant from a pail containing soft mud. Set the trees five feet apart each way. Make the holes with a grubhoe. Dig deep enough to allow the trees to stand a trifle lower than in the transplant bed, and wide enough to allow plenty of room for the roots. In setting the plants, put the loose loam next to the roots. If you have a sod, place it around the tree with the grassy side down for a mulch. Now tramp the soil thoroughly around the tree. For two or three years replace dead trees with live ones from the nursery.

If you wish to raise other species of pine trees, or spruce or balsam trees, follow the directions given for the white pine. Spruce and balsam, however, should be left two years in the transplanted bed. Pine should also be four years old when planted in grassy places.

If it is inconvenient for you to collect seeds you can purchase them. Chestnut seed will cost you about 25 cents a pound, white pine seed about $2.50 a pound.

Good fresh tree seeds can be bought from the following dealers:

J. M. Thorburn & Co, 35 Barclay St., New York City.

Thos. Meehan & Sons, Germantown, Phila., Pa.

Theodore F. Borst, South Framingham, Mass.

When you have your woodlot established write to the Forest, Fish and Game Commission for advice concerning its after treatment.

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